Date: Sat, 30 Jul 94 04:30:12 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #856
To: Info-Hams

Info-Hams Digest Sat, 30 Jul 94 Volume 94 : Issue 856

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 29 Jul 1994 12:04:26
From: news.sprintlink.net!indirect.com!s146.phxslip.indirect.com!
lenwink@uunet.uu.net
Subject: CHICAGO HAM RADIO!
To: info-hams@ucsd.edu

The Ham Radio & More show goes LIVE this Sunday, July 31, 1994, on
1330am, WKTA, in Chicagoland! Be sure to tune in and listen to Hap Holly
KC9RP, this sunday's guest. Now Chicago can listen LIVE and participate
by calling the call-in line at 1-800-298-talk.
The show air LIVE at 5:00pm Chicago time.

73, Len, KB7LPW

Date: 29 Jul 1994 19:53:04 GMT
From: news.uiowa.edu!panda@uunet.uu.net
Subject: Computer radio - SoftWave by ComFocus - any good?
To: info-hams@ucsd.edu

In note <CHESNEY.94Jul29132922@cimar.me.ufl.edu>, chesney@cimar.me.ufl.edu
(Vann Chesney) writes:
>I am interested in the SoftWave radio by ComFocus as advertised on
>page 4 of the Aug. '94 issue of Popular Communications. It seems
>to have many great features but is it worth $1495? Would it be
>better to buy a JCR or ICOM receiver with a computer interface in
>the same price range? Has anyone bought one or seen a demo? Any
>comments or opinions?
     I'd guess getting an ICOM or something is better... I can't get much of
anything on SW with my computer on, so getting a completely computer-dependant
radio might not be a good idea 8-)

>Vann Chesney
>AC4QS
>chesney@cimar.me.ufl.edu

Date: Fri, 29 Jul 1994 19:44:41 +0000
From: pipex!demon!g6dqy.demon.co.uk!john@uunet.uu.net
Subject: GB0SNF
To: info-hams@ucsd.edu

Just to let you know the special event station GB0SNF will be on the air
starting Sunday July 3rd and will continue or the rest of the week.

GB0SNF is at Salopia Ninety Four which is run by Shropshire County
International Camp. Scouts from all over the UK, Europe and elsewhere
in the world will be in attendance.

We hope to be on most of the HF bands and 2m ssb.

Time of operating will be approx 0800-1500 UTC.

john

--
  e-mail john@g6dqy.demon.co.uk   Nr Shrewsbury Shropshire
  System used : Acorn A3000   4 MB RAM, 60 MB Hard Disk
             AX.25 mail to g6dqy @ gb7pmb.#28.gbr.eu

Date: Fri, 29 Jul 1994 15:06:48 GMT
From: brunix!rn@uunet.uu.net
Subject: Need advice on towers
To: info-hams@ucsd.edu

I would like to get the net's advice/wisdom/experience/opinions on fixed towers (not crankups) on the order of 50' to 100'. Who is regarded as making the highest quality towers? What can I expect to spend? Where can I obtain info on installation (guy wires, concrete for the base, etc)? Is there a knowledgeable person in the vicinity of Providence, RI who would be willing to chat in person and provide some help?

Rob Netzer, KD1TS
rn@cs.brown.edu

Date: 29 Jul 94 15:07:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: orbs$210.2l.amsat
To: info-hams@ucsd.edu

SB KEPS @ AMSAT $ORBS-210.N
2Line Orbital Elements 210.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT
FROM WA5QGD FORT WORTH,TX July 29, 1994
BID: $ORBS-210.N

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:
1 AAAAAU 00 0 0 BBBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

AO-10
1 14129U 83058B 94195.81899517 -.00000239 00000-0 10000-3 0 2900
2 14129 27.0497 317.9184 6025942 194.3808 135.3303 2.05882029 83355
UO-11
1 14781U 84021B 94206.57201705 .00000126 00000-0 29120-4 0 7113
2 14781 97.7853 219.4981 0012287 142.1150 218.0921 14.69232874555947
RS-10/11
1 18129U 87054A 94205.76394677 .00000021 00000-0 61233-5 0 9290
2 18129 82.9269 301.0678 0010302 284.6472 75.3539 13.72339428355066
AO-13

```
1 19216U 88051B   94205.91938835  .00000274  00000-0  10000-4 0  9355
2 19216  57.7565 240.1864 7222231 346.4624   1.6687  2.09718427 46805
FO-20
1 20480U 90013C   94206.26040988 -.00000051  00000-0 -35431-4 0  7081
2 20480  99.0420 350.8957 0539824 253.2264 100.8961 12.83226193209016
AO-21
1 21087U 91006A   94208.21479316  .00000093  00000-0  82657-4 0  4933
2 21087  82.9441 113.0988 0035418 335.1148  24.8298 13.74542430175081
RS-12/13
1 21089U 91007A   94205.88513475  .00000042  00000-0  28212-4 0  7115
2 21089  82.9215 343.4852 0030108   6.5069 353.6469 13.74044138173828
ARSENE
1 22654U 93031B   94205.08601395 -.00000142  00000-0  00000+0 0  2672
2 22654   1.9520  97.7392 2917162 186.8922 167.2050  1.42201946  1729
UO-14
1 20437U 90005B   94206.22284695 -.00000006  00000-0  14630-4 0   131
2 20437  98.5894 290.4825 0012008  78.9012 281.3516 14.29850235235026
AO-16
1 20439U 90005D   94206.20702088  .00000003  00000-0  18130-4 0  8113
2 20439  98.5977 291.7399 0012239  79.4923 280.7641 14.29904338235030
DO-17
1 20440U 90005E   94206.22761656 -.00000004  00000-0  15240-4 0  8125
2 20440  98.5991 292.0970 0012389  78.8466 281.4111 14.30043974235052
WO-18
1 20441U 90005F   94205.78381851 -.00000004  00000-0  15267-4 0  8142
2 20441  98.5990 291.6570 0012956  80.7533 279.5114 14.30018047234996
LO-19
1 20442U 90005G   94206.24921416  .00000001  00000-0  17383-4 0  8105
2 20442  98.5996 292.3827 0013298  79.1581 281.1094 14.30114763235079
UO-22
1 21575U 91050B   94205.73789110  .00000018  00000-0  20773-4 0  5157
2 21575  98.4330 279.4738 0007454 171.9232 188.2073 14.36924859158479
KO-23
1 22077U 92052B   94206.41547975 -.00000037  00000-0  10000-3 0  4102
2 22077  66.0810 199.9404 0015234 277.3412  82.5876 12.86286814 91707
AO-27
1 22825U 93061C   94206.22287297 -.00000014  00000-0  12265-4 0  3088
2 22825  98.6518 281.6465 0009366  94.4271 265.7975 14.27629859 43114
IO-26
1 22826U 93061D   94206.20110340 -.00000005  00000-0  15806-4 0  3085
2 22826  98.6520 281.6684 0010136  97.7120 262.5225 14.27734369 43113
KO-25
1 22830U 93061H   94206.20302620 -.00000021  00000-0  88397-5 0  3134
2 22830  98.5527 278.5145 0012526  66.4100 293.8394 14.28060612 43126
NOAA-9
1 15427U 84123A   94209.86049340  .00000050  00000-0  50570-4 0  8945
2 15427  99.0483 260.8324 0015771 100.2990 259.9957 14.13631184496143
NOAA-10
```

```
1 16969U 86073A   94209.93863882  .00000033  00000-0  32404-4 0  7908
2 16969  98.5068 217.6655 0012694 204.4999 155.5579 14.24899864408442
MET-2/17
1 18820U 88005A   94208.55852336  .00000041  00000-0  23129-4 0  3495
2 18820  82.5407 236.4684 0018481  68.3344 291.9792 13.84719050327942
MET-3/2
1 19336U 88064A   94205.76914298  .00000051  00000-0  10000-3 0  3066
2 19336  82.5410 297.0872 0016655 164.4493 195.7144 13.16968092288209
NOAA-11
1 19531U 88089A   94209.91986747  .00000083  00000-0  69681-4 0  7125
2 19531  99.1754 199.8594 0012433  19.9693 340.1957 14.13006241301039
MET-2/18
1 19851U 89018A   94206.16702017  .00000056  00000-0  36844-4 0  3078
2 19851  82.5217 113.6493 0015211 115.0034 245.2711 13.84369062272940
MET-3/3
1 20305U 89086A   94206.27592288  .00000044  00000-0  10000-3 0  1012
2 20305  82.5580 243.6642 0008119 186.1895 173.9139 13.04423668227869
MET-2/19
1 20670U 90057A   94205.89238965  .00000027  00000-0  11152-4 0  8112
2 20670  82.5441 178.5177 0017469  44.5933 315.6629 13.84190069205833
FY-1/2
1 20788U 90081A   94208.52814093 -.00000160  00000-0 -77915-4 0   250
2 20788  98.8360 227.3802 0015002 261.5803  98.3662 14.01353109199356
MET-2/20
1 20826U 90086A   94206.20347469  .00000058  00000-0  38953-4 0  8193
2 20826  82.5270 115.7430 0012736 308.5800  51.4224 13.83586125193012
MET-3/4
1 21232U 91030A   94205.86668683  .00000051  00000-0  10000-3 0  7183
2 21232  82.5436 142.9622 0014163  88.3601 271.9145 13.16463391156319
NOAA-12
1 21263U 91032A   94209.97738238  .00000136  00000-0  80415-4 0  1163
2 21263  98.6160 236.8309 0013628 112.1636 248.0972 14.22433181166449
MET-3/5
1 21655U 91056A   94208.09861331  .00000051  00000-0  10000-3 0  7273
2 21655  82.5543  88.5658 0014763  93.3306 266.9508 13.16832663141712
MET-2/21
1 22782U 93055A   94207.86898054  .00000051  00000-0  33013-4 0  3201
2 22782  82.5482 174.9895 0023648 111.9019 248.4661 13.83011161 45577
POSAT
1 22829U 93061G   94206.20886141  .00000012  00000-0  22305-4 0  3019
2 22829  98.6465 281.7033 0011077  84.7659 275.4787 14.28034406 43124
MIR
1 16609U 86017A   94208.19718392  .00001859  00000-0  32354-4 0  6909
2 16609  51.6474 346.2470 0001596 176.9266 183.1737 15.56672881482255
HUBBLE
1 20580U 90037B   94208.52592579  .00000363  00000-0  20944-4 0  5116
2 20580  28.4706 336.8557 0006320 147.8719 212.2252 14.90646736 35414
GRO
```

1 21225U 91027B   94208.03852033 .00001628 00000-0 32144-4 0 1209
2 21225 28.4634 315.4524 0003172 303.2211 56.8019 15.41089825 63090
UARS
1 21701U 91063B   94208.52684492 .00002576 00000-0 24557-3 0 5603
2 21701 56.9859 357.4100 0005682 108.4118 251.7532 14.96553003156978
/EX

Date: 29 Jul 94 14:59:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: orbs$210.micro.amsat
To: info-hams@ucsd.edu

SB KEPS @ AMSAT $ORBS-210.D
Orbital Elements 210.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM WA5QGD FORT WORTH,TX July 29, 1994
BID: $ORBS-210.D
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time: 94206.22284695
Element set: 13
Inclination: 98.5894 deg
RA of node: 290.4825 deg
Eccentricity: 0.0012008
Arg of perigee: 78.9012 deg
Mean anomaly: 281.3516 deg
Mean motion: 14.29850235 rev/day
Decay rate: -6.0e-08 rev/day^2
Epoch rev: 23502
Checksum: 291

Satellite: AO-16
Catalog number: 20439
Epoch time: 94206.20702088
Element set: 811
Inclination: 98.5977 deg
RA of node: 291.7399 deg
Eccentricity: 0.0012239
Arg of perigee: 79.4923 deg
Mean anomaly: 280.7641 deg
Mean motion: 14.29904338 rev/day
Decay rate: 3.0e-08 rev/day^2
Epoch rev: 23503

```
Checksum:              318

Satellite: DO-17
Catalog number: 20440
Epoch time:      94206.22761656
Element set:     812
Inclination:       98.5991 deg
RA of node:       292.0970 deg
Eccentricity:    0.0012389
Arg of perigee:    78.8466 deg
Mean anomaly:     281.4111 deg
Mean motion:   14.30043974 rev/day
Decay rate:       -4.0e-08 rev/day^2
Epoch rev:           23505
Checksum:              302

Satellite: WO-18
Catalog number: 20441
Epoch time:      94205.78381851
Element set:     814
Inclination:       98.5990 deg
RA of node:       291.6570 deg
Eccentricity:    0.0012956
Arg of perigee:    80.7533 deg
Mean anomaly:     279.5114 deg
Mean motion:   14.30018047 rev/day
Decay rate:       -4.0e-08 rev/day^2
Epoch rev:           23499
Checksum:              314

Satellite: LO-19
Catalog number: 20442
Epoch time:      94206.24921416
Element set:     810
Inclination:       98.5996 deg
RA of node:       292.3827 deg
Eccentricity:    0.0013298
Arg of perigee:    79.1581 deg
Mean anomaly:     281.1094 deg
Mean motion:   14.30114763 rev/day
Decay rate:        1.0e-08 rev/day^2
Epoch rev:           23507
Checksum:              299

Satellite: UO-22
Catalog number: 21575
Epoch time:      94205.73789110
Element set:     515
```

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Inclination:       98.4330 deg
RA of node:       279.4738 deg
Eccentricity:    0.0007454
Arg of perigee:   171.9232 deg
Mean anomaly:     188.2073 deg
Mean motion:   14.36924859 rev/day
Decay rate:        1.8e-07 rev/day^2
Epoch rev:           15847
Checksum:              328

Satellite: KO-23
Catalog number: 22077
Epoch time:      94206.41547975
Element set:     410
Inclination:       66.0810 deg
RA of node:       199.9404 deg
Eccentricity:    0.0015234
Arg of perigee:   277.3412 deg
Mean anomaly:      82.5876 deg
Mean motion:   12.86286814 rev/day
Decay rate:       -3.7e-07 rev/day^2
Epoch rev:            9170
Checksum:              310

Satellite: AO-27
Catalog number: 22825
Epoch time:      94206.22287297
Element set:     308
Inclination:       98.6518 deg
RA of node:       281.6465 deg
Eccentricity:    0.0009366
Arg of perigee:    94.4271 deg
Mean anomaly:     265.7975 deg
Mean motion:   14.27629859 rev/day
Decay rate:       -1.4e-07 rev/day^2
Epoch rev:            4311
Checksum:              339

Satellite: IO-26
Catalog number: 22826
Epoch time:      94206.20110340
Element set:     308
Inclination:       98.6520 deg
RA of node:       281.6684 deg
Eccentricity:    0.0010136
Arg of perigee:    97.7120 deg
Mean anomaly:     262.5225 deg
Mean motion:   14.27734369 rev/day
```

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Decay rate:       -5.0e-08 rev/day^2
Epoch rev:            4311
Checksum:              270

Satellite: KO-25
Catalog number: 22830
Epoch time:      94206.20302620
Element set:     313
Inclination:       98.5527 deg
RA of node:       278.5145 deg
Eccentricity:    0.0012526
Arg of perigee:    66.4100 deg
Mean anomaly:     293.8394 deg
Mean motion:   14.28060612 rev/day
Decay rate:       -2.1e-07 rev/day^2
Epoch rev:            4312
Checksum:              259

/EX

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Date: 29 Jul 94 15:03:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: orbs$210.weath.amsat
To: info-hams@ucsd.edu

SB KEPS @ AMSAT  $ORBS-210.W
Orbital Elements  210.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM WA5QGD FORT WORTH,TX July 29, 1994
BID: $ORBS-210.W
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time:      94209.86049340
Element set:     894
Inclination:       99.0483 deg
RA of node:       260.8324 deg
Eccentricity:    0.0015771
Arg of perigee:   100.2990 deg
Mean anomaly:     259.9957 deg
Mean motion:   14.13631184 rev/day
Decay rate:        5.0e-07 rev/day^2
Epoch rev:           49614
Checksum:              325
```

```
Satellite: NOAA-10
Catalog number: 16969
Epoch time:      94209.93863882
Element set:     790
Inclination:       98.5068 deg
RA of node:       217.6655 deg
Eccentricity:    0.0012694
Arg of perigee:   204.4999 deg
Mean anomaly:     155.5579 deg
Mean motion:   14.24899864 rev/day
Decay rate:        3.3e-07 rev/day^2
Epoch rev:           40844
Checksum:              375

Satellite: MET-2/17
Catalog number: 18820
Epoch time:      94208.55852336
Element set:     349
Inclination:       82.5407 deg
RA of node:       236.4684 deg
Eccentricity:    0.0018481
Arg of perigee:    68.3344 deg
Mean anomaly:     291.9792 deg
Mean motion:   13.84719050 rev/day
Decay rate:        4.1e-07 rev/day^2
Epoch rev:           32794
Checksum:              332

Satellite: MET-3/2
Catalog number: 19336
Epoch time:      94205.76914298
Element set:     306
Inclination:       82.5410 deg
RA of node:       297.0872 deg
Eccentricity:    0.0016655
Arg of perigee:   164.4493 deg
Mean anomaly:     195.7144 deg
Mean motion:   13.16968092 rev/day
Decay rate:        5.1e-07 rev/day^2
Epoch rev:           28820
Checksum:              324

Satellite: NOAA-11
Catalog number: 19531
Epoch time:      94209.91986747
Element set:     712
Inclination:       99.1754 deg
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RA of node:       199.8594 deg
Eccentricity:    0.0012433
Arg of perigee:    19.9693 deg
Mean anomaly:     340.1957 deg
Mean motion:   14.13006241 rev/day
Decay rate:        8.3e-07 rev/day^2
Epoch rev:           30103
Checksum:              316

Satellite: MET-2/18
Catalog number: 19851
Epoch time:      94206.16702017
Element set:     307
Inclination:       82.5217 deg
RA of node:       113.6493 deg
Eccentricity:    0.0015211
Arg of perigee:   115.0034 deg
Mean anomaly:     245.2711 deg
Mean motion:   13.84369062 rev/day
Decay rate:        5.6e-07 rev/day^2
Epoch rev:           27294
Checksum:              276

Satellite: MET-3/3
Catalog number: 20305
Epoch time:      94206.27592288
Element set:     101
Inclination:       82.5580 deg
RA of node:       243.6642 deg
Eccentricity:    0.0008119
Arg of perigee:   186.1895 deg
Mean anomaly:     173.9139 deg
Mean motion:   13.04423668 rev/day
Decay rate:        4.4e-07 rev/day^2
Epoch rev:           22786
Checksum:              308

Satellite: MET-2/19
Catalog number: 20670
Epoch time:      94205.89238965
Element set:     811
Inclination:       82.5441 deg
RA of node:       178.5177 deg
Eccentricity:    0.0017469
Arg of perigee:    44.5933 deg
Mean anomaly:     315.6629 deg
Mean motion:   13.84190069 rev/day
Decay rate:        2.7e-07 rev/day^2
```

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Epoch rev:           20583
Checksum:              333

Satellite: FY-1/2
Catalog number: 20788
Epoch time:      94208.52814093
Element set:      25
Inclination:       98.8360 deg
RA of node:       227.3802 deg
Eccentricity:    0.0015002
Arg of perigee:   261.5803 deg
Mean anomaly:      98.3662 deg
Mean motion:   14.01353109 rev/day
Decay rate:      -1.60e-06 rev/day^2
Epoch rev:           19935
Checksum:              287

Satellite: MET-2/20
Catalog number: 20826
Epoch time:      94206.20347469
Element set:     819
Inclination:       82.5270 deg
RA of node:       115.7430 deg
Eccentricity:    0.0012736
Arg of perigee:   308.5800 deg
Mean anomaly:      51.4224 deg
Mean motion:   13.83586125 rev/day
Decay rate:        5.8e-07 rev/day^2
Epoch rev:           19301
Checksum:              282

Satellite: MET-3/4
Catalog number: 21232
Epoch time:      94205.86668683
Element set:     718
Inclination:       82.5436 deg
RA of node:       142.9622 deg
Eccentricity:    0.0014163
Arg of perigee:    88.3601 deg
Mean anomaly:     271.9145 deg
Mean motion:   13.16463391 rev/day
Decay rate:        5.1e-07 rev/day^2
Epoch rev:           15631
Checksum:              298

Satellite: NOAA-12
Catalog number: 21263
Epoch time:      94209.97738238
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```
Element set:     116
Inclination:       98.6160 deg
RA of node:       236.8309 deg
Eccentricity:    0.0013628
Arg of perigee:   112.1636 deg
Mean anomaly:     248.0972 deg
Mean motion:   14.22433181 rev/day
Decay rate:       1.36e-06 rev/day^2
Epoch rev:           16644
Checksum:              299

Satellite: MET-3/5
Catalog number: 21655
Epoch time:      94208.09861331
Element set:     727
Inclination:       82.5543 deg
RA of node:        88.5658 deg
Eccentricity:    0.0014763
Arg of perigee:    93.3306 deg
Mean anomaly:     266.9508 deg
Mean motion:   13.16832663 rev/day
Decay rate:        5.1e-07 rev/day^2
Epoch rev:           14171
Checksum:              315

Satellite: MET-2/21
Catalog number: 22782
Epoch time:      94207.86898054
Element set:     320
Inclination:       82.5482 deg
RA of node:       174.9895 deg
Eccentricity:    0.0023648
Arg of perigee:   111.9019 deg
Mean anomaly:     248.4661 deg
Mean motion:   13.83011161 rev/day
Decay rate:        5.1e-07 rev/day^2
Epoch rev:            4557
Checksum:              312

/EX

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Date: 29 Jul 1994 01:11:58 -0700
From: news.sprintlink.net!bethel.connected.com!hebron.connected.com!not-for-
mail@uunet.uu.net
Subject: Wanted, Kenwood RZ-1 mods
To: info-hams@ucsd.edu
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Tom WB7ASR (tom_boza@ccm.hf.intel.com) wrote:

: Does anyone have "any" mods for the Kenwood RZ-1 scanner?
: If so, I would appreicate copies of them.

try FTP oak.oakland.edu
/pub/hamradio/mods/kenwood

The RZ-1 might be there...It's a good source of mods

End of Info-Hams Digest V94 #856
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